Amendments to the Drawings:

The attached drawings includes changes to Figs. 2-4. These sheets, which includes Figs. 2-4, replaces the original sheet including Figs. 2-4.

Attachment: Annotated Sheet Showing Changes
Replacement Drawings

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1, 5-18 and 20 are pending in the present application. Claims 3 and 4 have been canceled and claims 1 and 6 have been amended by the present amendment.

In the outstanding Office Action, the claims were rejected over a variety of references including Elgamal, Ganesan, Binding, Chen and Wall. These rejections are respectfully traversed.

The present invention currently includes independent claims 1 and 6. For example, amended independent claim 1 is directed to a security protocol structure in an application layer of a Wireless Application Protocol (WAP) standard including a secure session layer directly between a session layer having wireless session protocol and an application layer; a transaction layer having wireless transaction protocol below the session layer; and a security layer having a wireless transport layer security below the transaction layer. Also included is a transport layer having a wireless datagram protocol below the security layer, and a network layer below the transport layer. Further, the secure session layer provides a data security function in the application layer, and includes a secured session layer security (SSLS) protocol to provide a secure session interface to an application program, and secure communication is

established between a server and a client using the SSLS protocol and without using a certificate or public/private key generation operation.

As discussed in the previous response, the present application specifically teaches that the related art WTLS has various problems. For example, since the WTLS 23 (see Figure 1) provides data security at a layer right above the transport layer 12, it does not provide any data security in an application layer 16. Specifically, the current WAP standard does not define the functions of data integrity, data security, and user authentication at all. Hence, a specific unit must be defined in order to provide data security in the application layer (see page 3, lines 1-5). In addition, the memory capacity and/or a CPU processing power of the current terminal is inappropriate to deal with user authentication using a certificate or public/private key generation operation that the WTLS deals with, and the protocol format proposed by the WTLS is complicated. Thus, the overload in data generation and decryption can never be ignored (see page 3, lines 6-10).

That is, the present specification recognized specific problems with the related art WTLSs and solves the problems by providing a secure session layer directly between a session layer and an application layer.

The Office Action applies Elgamal as the primary reference and indicates Elgamal teaches a secure session layer between a session layer and an application layer. However, it is respectfully noted that Elgamal is not directed to a Wireless Application Protocol standard,

but rather is directed to a Internet protocol stack. The internet protocol stack shown in Figures 8 and 9 of Elgamal does not include presentation and session layers (see column 11, lines 13-16, for example). Thus, Elgamal cannot teach a secure session layer directly between a session laying including a wireless session protocol and an application layer including a wireless application environment as claimed by the present invention.

The Office Action also relies on Binding as disclosing wireless protocols and indicates it would have been obvious to combine the teaching of Binding with the system of Elgamal because Binding discloses end-to-end security at the application level has to be specified in the wireless application environment. However, it is respectfully submitted the combined teachings of the references do not indicate that the secured session layer is directly between a session layer and an application layer, as claimed by the present invention. That is, there is no teaching in the combined references about placing the secured session layer directly between the session layer and the application layer. Similar comments apply to independent claim 6.

Further, the applied art does teach or suggest the specific protocols (WAP, SSLS, etc.) of the present invention. That is, as discussed above, Elgamal does not teach or suggest a WAP protocol or a SSLS protocol. The other references also do not teach or suggest the specific protocols of the present invention.

Accordingly, it is respectfully submitted independent claims 1 and 6 and each of the claims depending therefrom are allowable and the rejections noted in the Office Action have been overcome.

Further, the drawings have been amended to correct minor informalities. Formal drawings are enclosed.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **David A. Bilodeau**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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